DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

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RAYNOLDS & NOURSE, *Proprietors.* OFFICE, QUINCY HALL, BOSTON. S. W. COLE, *Editor.*

THE CROP OF APPLES.

According to the present prospect, there will be a rather light crop of apples in New England, this season, or at most not more than a medial crop. This is an odd year, 1851, and we never have large crops in odd years, and seldom a middling crop, but generally a light one. We have our large crops of apples in even years. This is the result of more than 30 years' observation. Our natural trees as well as most kinds of grafted varieties bear mostly in even years.

Since we introduced this subject to the public, many observing men have confirmed our views. But a few persons have been disposed to ridicule hem without making observations to see whether they are correct or not. There are a few individuals, in this world of variety, who are too obstinate or stupid to learn, and they remain ignorant in spite of long experience, because they will not open their eyes to the light that is around them.

The fact that we have our largest crops of apples in even years (1850, 1852, &c.) and our lightest crops in odd years, (1849, 1851, &c.) is of great practical importance both to the growers and consumers of fruit. For by proper management the apple crops will be more equal. Let the raiser of fruit cultivate more extensively some of those few varities that bear annually, or yield their principal crops in odd years. And in cultivating those varieties that bear mostly in even years, select scions from those trees that bear invariably in odd years; for such there are. We know a farmer who, when he commenced setting his orchard, grafted all his Baldwin trees from a tree that always bore well in odd years. The consequence is that he gets about two-thirds of his crops of Baldwins in odd years, when they are scarce, and bring a good price. One of the most extensive cultivators of fruit in this region remarked, in confirmation of our views on this subject, that he generally sold his Baldwin apples in odd years for about twice as much as in even years, owing to their scarcity in odd years. His orchard produces twice or thrice as many in even as in odd years; and he said it was the same with others, else the price would not be generally affected.

WATER FOR STOCK.

In many situations cattle and other animals suffer for want of pure water in summer, especially in a dry time. In some cases they are supplied from a small spring or very small stream, and the place for the animals to drink is nothing but a mud hole. A few of the strongest creatures drink and disturb the water so that most of the stock have a poor supply, both in quality and quantity.

With proper management, a large stock can have a good supply of pure water from a small fountain or stream. Conduct the water into a large trough, and cover the spring so that the cattle cannot disturb the water or drop their manure in it; and if the trough will not hold water enough to supply the whole stock when thirsty, add tubs or other vessels. After the animals have drank, wash out the trough and other vessels, as often as once a week scrubbing them with a broom, or brush, as water standing in large vessels, with only a small supply, will soon grow foul in hot weather. When water is supplied from a pump or aqueduct, there should be the same attention to cleansing the vessels.

SUMMER PRUNING OF GRAPES.

As very erroneous notions generally prevail as to the summer management of grapes, frequent hints to cultivators are necessary. We have noticed that in many cases already the main shoots have been cut back to the fruit, thus depriving the fruit of the nourishment and support which without this mutilation would be given by a vigorous shoot, in the foliage, of which the sap, with other matter taken up from the atmosphere, would be elaborated into suitable food for the growth and maturation of the

fruit. By cutting off these shoots the fruit is robbed of its support which nature has provided.

We have noticed in a garden, kept by a professional gardener, where there were a large quantity of grapes, that all the new shoots had been cut back to the fruit, so as to leave it exposed to the sun, excepting on one trellis, where they, fortunately, had been neglected. The grapes on that trellis were well grown, and ripening well, while all the others were imperfectly grown, and remained green.

When grapes are improperly pruned as we have named in July, they will often send out new shoots, and recover, in some measure, from the evil, but when this pruning is done rather late, it often destroys the crop.

There is generally a great error in not pruning grapes thoroughly in the fall, or in the spring, so that there is a great mass of vines, which often leads to the erroneous mode of pruning which we have named. When the vines become too thick from a very luxuriant growth, and previous scanty pruning, the best remedy is to cut off lateral branches, and all feeble shoots, and cut out whole small vines on which there is little or no fruit, and allow the main shoots to run twenty or thirty feet, if they will.

VERMONT STATE AGRICULTURAL SOCIETY.

In pursuance of a call made by over two hundred of the agriculturists and raisers of stock in Vermont, a public meeting was holden at Middlebury, on the 16th of June, 1851, at which it was resolved to hold a State Fair, agreeable to the notice given in our last paper, and the following officers were chosen:—

Hon. Calvin G. Tilden, Pres., *pro tem.;* John Gregory, Secretary, *pro tem.*

The following persons were appointed a committee of nominations:—Hon. N. L. Keese, Esq., F. E. Woodbridge, Esq., John Gregory, Esq., S. W. Jewett, Esq., and A. L. Bingham, Esq., who made the following nominations:—

For President, Hon. Frederick Holbrook.

For Vice Presidents, Hon. William Nash, Hon. George Chipman, Paris Fletcher, Esq., E. D. Barber, Esq., G. A. Austin, Esq., F. E. Woodbridge, Esq., of Addison County; Hon. Chas. Paine, John Gregory, Esq., Hon. Roderick Richardson, of Washington County; Hon. Jno. Wheeler, Rev. L. G. Bingham, Ezra Meech, Jr., Esq., of Chittenden County; Hon. J. K. Hyde, Jesse Hines, Esq., of Rutland County; Hon. Jno. S. Pettibone, of Bennington County; Hon. Epaphro Seymour, Geo. Campbell, Esq., of Windham County; P. B. Southgate, Esq , Ebenezer Bridge, Esq., of Windsor County; Col. J. P. Kidder, Col. J. Thomas, of Orange County; A. M. Clark, Hon. Jno. S. Foster, of Franklin County; Hon. Henry M. Bates, of Orleans County; Hon. Nathan Smilie, Stillman Churchill, Esq., of Lamoille County; Hon. Jno. Dewey, of Essex County; Hon. Samuel Adams, of Grand Isle County; Hon. E. Fairbanks, of Caledonia County.

For Secretary, Maj. E. R. Wright.

For Marshals, Col. Abram Foot, Col. D. S. Church, Col. W. S. Johnson.

Committee of Arrangements, Merrill Bingham, Edwin Hammond, Alonzo L. Bingham, David Hill, Seth Langdon, Wm. Phelps Nash, Lyman P. White, Joseph Warner, S. W. Jewett.

Committee to invite an orator for the occasion, S. W. Jewett.

Editors of papers are requested to copy the above.

ACKNOWLEDGMENTS.

From J. C. Stone & Co., nurserymen, Shrewsbury, a box of very large and excellent cherries. They are the Black Tartarean, and of the largest and most saleable kinds cultivated. In reply to some remarks of these gentlemen, we would say that this cherry belongs to the class called Heart cherries. The Bigarreau cherry is of a light red and amber color. It is a week or ten days later than the Black Tartarean, and in New England, often, if not generally, called White Tartarean by those who have not examined well into the true names of cherries.

From John Washburn, Plymouth, seeds of Downing's Colossal Rhubarb, which are very acceptable, as we have a very favorable account of this variety, and wish to try it.

☞ Several communications are postponed till next week.

For the New England Farmer.

RAPID GROWTH OF PLANTS.

Mr. Editor:—Some time since there appeared in the daily papers an account of an experiment performed in England, by which the growth of plants was quickened to an extraordinary degree. It consisted in placing near the seed, when planted, a piece of copper and a piece of zinc, connected by a copper wire. It was stated that a current of electricity being thus produced, and constantly flowing through the soil, near the roots of the plant, caused it to grow with an astonishing degree of rapidity. It was said that full grown radishes had been raised in three or four hours. Having a desire to try this experiment, I wish to obtain a *particular description* of the manner of performing it, and to ascertain *all the conditions* on which its success depends. Any information on this subject, from yourself or any of your correspondents, will greatly oblige,

Somerville, June. 1851. A Subscriber.

Will some of our scientific readers please give the information desired?—Ed.

☞ The finer the seed to be sown, the finer should the soil be made which is to receive it.

CURCULIO.

Rhyncharus Nenuphar.

We have published several valuable articles this season on the curculio, describing it, and suggesting various modes of destroying it, or preventing its operations. We now present our readers with a representation of it in its different stages:

1. Curculio in the perfect or beetle state, as large as life.

2. Its assumed form, when disturbed, or shaken from the tree.

3. Larva, or worm, as found in the fallen fruit.

4. Pupa, or chrysalis form, in which it lives in the ground, and the last stage before the perfect state.

On the figure of a plum are the crescent-shaped marks as made by this insect.

The color of the curculio is dark brown, variegated with spots of white, yellow and black. These insects appear from the latter part of April until the last of July, according to the season. Soon after the blossoms fall, they begin to puncture the little plum with their snout or rostrum, and lay an egg in the wound. The gum oozes out, the egg hatches, the worm eats towards the centre of the fruit, which falls, often before a quarter grown, and the worm enters the earth, where it remains in the pupa state five or six weeks. It is supposed that some remain until the next season.

These insects are very destructive to plums, sometimes destroying large crops to a large extent; they also attack other smooth-skinned fruits, such as apples, cherries, nectarines and apricots. Apples and cherries are not generally so much injured, though often marked by that insect. This season, we find many curculios at work on our peaches, even on those of very rough skin; they draw away the furze, or woolly stuff, in order to get a smooth place to deposit their eggs. A large number of peaches have fallen, in consequence of their operations. They had done much mischief before it was discovered, as we did not expect to find them on the peach, having never seen them on this fruit before.

Acknowledgments. — From John Washburn, Plymouth, fine specimens of the Doctor Cherries, one of Professor Kirtland's new seedlings from Ohio. These cherries are very handsome and of excellent quality. As they grew on a tree set last spring, they have not attained quite full size.

We have from some person whose name is mislaid or lost, a bunch of fine cherries, medial size, dark red, and of as good quality as the cultivated cherries generally.

STRAWBERRIES.

RICHARDSON'S LATE—FAY'S SEEDLING.

We have an inquiry whether it is advisable to go into the culture of Richardson's Late Strawberry for the purpose of raising late crops for market. From observing this strawberry growing by the side of other varieties a few years since, we came to the conclusion that it was only two or three days later than Hovey's Seedling. We have fruited it this season in a fair experiment with many other varieties, and the result confirms our opinion.

We have supposed that the statement that this strawberry was 10 days later than Hovey's was well calculated to humbug the public and to sell the plants at extravagant prices; and this has been done, we presume, pretty effectually. Many will be sadly disappointed. A gentleman who was recently examining our strawberries, remarked that he had tried Richardson's Late, and he found it only two or three days later than Hovey's, and inferior in some other respects.

Jenney's Seedling is a valuable strawberry, and ripens 5 or 6 days later than Hovey's Seedling, so that the crop is not much more than half gone, when Hovey's is gone. Willey is a valuable productive strawberry, and 8 or 9 days later than Hovey's, so that the crop is hardly half gone when Hovey's is gone. We should recommend these two varieties for late crops.

The editor of the Cambridge Chronicle takes exceptions at our late remarks on Fay's Seedling strawberry, as we remarked that we had discarded it as a poor bearer, and the editor of the Boston Journal gives an account of a great crop which he saw from it. We made a fair experiment with this strawberry for several years with other varieties, treating them all alike with good culture, and compared with other varieties, we found it was not worth cultivating. But we did not give our opinion to the public without further investigation. We found that the best cultivators who had tried it condemned it generally. An extraordinary crop from a little patch in a rich garden, receiving great care and the highest manuring that it will bear, does not show the value of a variety, for general culture. With such treatment great stories may be told of almost any variety. Newland, who played off his game of deception in this vicinity, selling plants of his "Celebrated Mammouth Alpine" at high prices, had certificates to show that it produced wonderful crops, even one from a governor of one of the States. But our cultivators found on trial that it was the old wood strawberry, formerly much cultivated, but recently discarded for new and more profitable kinds.

For the New England Farmer.

QUERIES.

What is the proper time of year for layering grape vines, and when the best time to set out the cuttings?

When is the best time to set out strawberry plants, and how far apart ought they to be set?

What kind of manure is best adapted to each? Please answer, and you will much oblige

N. Raymond, Me. S. TENNEY.

REMARKS.—The proper time of layering is in the spring. The vines should be laid on the ground where they are to be planted, when the buds begin to start, that they may shoot upward. Let them remain till the shoots are four or five inches high Then dig a trench two or three inches deep, lay the vine in it, fasten it down with sticks to the bottom of the trench, then cover it with fine soil. When the weather becomes hot it is better to mulch them. We find this a very successful mode. We now (July 3d) have shoots from layers, five or six feet high, and growing with great rapidity. On some vines six feet long we have eight or ten shoots.

Cuttings should be planted in the spring. They should either be planted early, or laid in fine soil exposed to the sun and covered about one or two inches deep, that vegetation may commence early. This takes place some time before the roots start. In this way later planting will answer.

The best time for setting out strawberries is in the spring, just as the plants have started, that vigorous ones may be selected. They should be set in rows four feet apart; and, generally, they should be about one foot apart in the rows. But, as different varieties differ in vigor and hardiness, the distance should be adapted to the habits of the variety when they are known.

Last spring, we set ten kinds four feet apart in the rows, and the plants one foot apart. This season, we find a great difference in the quantity of the plants. Some are too thick; others too thin. Early Virginia, Boston Pine and Jenney's Seedlings, are about thick enough. Willey's is too thick by one-third. In setting these again we should set the plants eighteen inches apart. Hovey's Seedling and Black Prince are not half thick enough; they grow with less vigor than other plants. And the late tender plants were killed by the winter. We think we set the plants of Hovey's eight inches in the row, as its habits were known to us. Yet we did not get half a crop, owing to the scarcity of the plants. Or a better way might be to set two rows eighteen inches apart, and then leave thirty inches between; making a double row to every four feet, and the plants should be placed eight or ten inches apart. This mode would be more expensive in planting and cultivating, than is required in managing a more vigorous variety.

If strawberry plants are set in July or early in August, and wet weather succeeds, the new plants from the runners will be sufficiently strong to bear fruit the next season. But if they are set late in August, or if set early and there is a long drought and hot weather, the new plants will produce but little fruit another season. And the cultivator would have to rely upon the plants set out for his crops; therefore, we should advise thick setting in summer, as recommended for Hovey's Seedling. Then if no new vigorous plants are formed the old plants would produce a tolerable good crop.

A good manure for grapes or strawberries is a compost of one-third animal manure with two-thirds sand, gravel, loam, mud, or peat, according to the soil. Mud, peat or clayey loam is good for dry soil, and sand and gravel for soils rather too heavy. In addition, bone manure, ashes, soap-suds and various other materials are good. Cinders from the blacksmith's forge and fine brick dust are good for grapes.

For the New England Farmer.

POTATO ROT.

Now is the time to ascertain, by actual observation, the truth or fallacy of the pretended theories of this malady. If it be true, as Mr. Flanders says, that "a small insect or black bug" is the cause, then every one who will take the trouble to look, can discover it. Upon our own vines, no appearance of disease or decay has yet been seen. But some of my neighbors say, they have discovered a black bug, about one-sixteenth of an inch in length, not unlike a flea, in large numbers, about their potatoes; others have seen a similar bug about their squashes; let every one watch carefully, and trace the consequences of their movements. I have before heard of this *bug theory*. I recollect Mr. Mason, of West Beach, in Beverly, so explained the loss of the potato the last year. He actually poin ted out the insect upon the vines; and said he had noticed them for years; but nobody gave credit to his explan ation—nor did I—nevertheless, a practical, observin g man in Beverly, may be as likely to be right, as any such man in Lowell. Look sharp, and if there is any truth in the theory, the present season will settle it. And if there is not, let some other theory be started.

Danvers, June 30th, 1851.

REMARKS.—We have noticed the black bug or fly on our potato tops, but we think it is nothing new, and we do not apprehend any loss of potatoes from his operations. Others recognize this bug as an old acquaintance.

For the New England Farmer.

MULCHING TOMATOES.

FRIEND COLE:—There exists in the minds of cultivators a great difference of opinion with regard to the best method of managing the tomato. Some tie them up on bushes, while most people allow nature to take its own course.

Now, sir, my method is to cultivate well, till the vines get large enough to begin to lean and spread, then to hoe the ground over fresh, and cov-

er the entire surface, one or two inches thick at least, with clean straw.

This proves beneficial in keeping down the weeds, in retaining moisture, and in keeping the fruit perfectly clean. I tried the above method last year, at the suggestion of a friend, and was perfectly satisfied with the result.

Yours truly, A Lover of Tomatoes.

July 2nd, 1851.

For the New England Farmer.

VITALITY OF VEGETABLES.

The propensity of the esculent roots, the potato, the onion, the turnip and others, to grow after being gathered late in autumn, is familiar to all; though the potato shows no signs of growth till warm weather returns in the spring. The potato is thought to be losing its vital energy or vegetating power, according to the opinions of some, and to this cause they ascribe its blight or rot. The correctness of this opinion I much doubt, for reasons which I now state. Those potatoes untouched with that disease, indicate vegetating power, in the cellar and when planted, no less than they did before the rot appeared. Stray potatoes lying in my cellar a year after being dug, confined under an inverted bin, were found last November to have been vegetating all summer, and a large number of pea-sized potatoes were growing upon the branches shot forth from the parent tuber. From this they derived their life and growth. They were preserved during the past winter without any special means for the purpose, being left open to the air like the last gathered crop. Now, the parent and offspring are planted together, and the little potatoes are sending up small vines correspondent with their size. The life of the old potato was spent in propagating the young ones. The result I shall watch with interest. This fact shows the tenacity of life in the parent tuber, and in its imprisoned progeny remarkably.

I observe, also, that some potatoes accidentally left in the ground over winter are shooting forth vigorous branches, and earlier, larger leaves than those springing from my planted hills. Having lain in the earth unexposed to the air, unaffected by its influence, they seem to grow with rapidity and healthy vigor. I see no evidence to convince me, therefore, that this vegetable is subject to rotting from loss of vegetating health and strength, or from decay of its vital principle.

The onion, turnip, beet, &c., as also the cabbage and cauliflower and Scotch cale, refuse to suspend their vegetating process till spring returns, and struggle forward towards the formation of tops and branches for the production of seed. I was surprised, this spring, to find that cauliflower stocks, unfit for cutting and thrown over a box containing turnips in my garden, and there covered with turnip tops and hemlock boughs to protect the turnips from frost, had grown in that position and had flowers fit for cooking. It convinced me that a box covering of boards with a good roofing of hemlock boughs would have enabled the row of cauliflowers to survive the last winter, and continue their growth in their original position, to far greater advantage. Such an experiment may be worth trying with cauliflowers if not with cabbages set out in rows before the hard frosts of November commence.

Salisbury, Ct., June 9, 1851. J. Lee.

For the New England Farmer.

PRODUCT OF CERTAIN COWS.

[Mr. Atherton forwarded to us the following article for publication, which was also communicated to the Ploughman, and has appeared in that paper. —Ed.]

Mr. Editor:—I take this opportunity to inform you of a trial of one of the improved breed of cows, which I hope you will think important enough to lay before your readers, for their special benefit.—And many will still contend they are no better than the common native, unless they have better keep. I have 24 cows that I am keeping at home and milking this summer; part of them are Durham, the rest are Durham and Ayrshire crosses; the latter I think are better when taken in all than either of them are clear. The one I send you the trial of is a Durham, 9 years old, which calved in April.

June 1	morning	20 lbs.	of milk.
"	evening	20	" "
June 2	morning	17	" "
"	evening	20½	" "
June 3	morning	20	" "
"	evening	20	" "
June 4	morning	20	" "
"	evening	21	" "
June 5	morning	20	" "
"	evening	21¼	" "
June 6	morning	19	" "
"	evening	21	" "
June 7	morning	18½	" "
"	evening	19½	" "
		278 lbs.	

Which made 13 lbs. 8 oz. of the very best of butter. I also have another cow 6 years old, which calved in April, that gave in the same time 259 1-2 lbs. of milk and made 12 lbs. 9 oz. of butter; and one 3 years old heifer that I tried only 3 days, which was the 5th, 6th, 7th of June, which made 4 1-2 lbs. of butter in the three days; and I wish it to be remembered that these cows had nothing but pasture feed, and run with the rest, making a drove of 24; neither did they have any kind of grain or roots, for some 8 or 10 days before the 1st of June. They were milked between 5 and 6 o'clock, morn and eve, as near as circumstances would admit.

We invite all that feel interested in breeding the best of stock to call and see ours before purchasing, and we think they never will have cause to regret their journey.

Yours, &c., S. T. Atherton,
Shaker Village, Harvard, Mass.

South Groton, June 16th.

For the New England Farmer.

THE BIRDS.

Mr. Cole:—It is with pain I see so many birds cruelly destroyed by persons who are ambitious of being known as a "good shot," while the prairies of the Great West are open to them, stocked with all kinds of game, where these "good shots" would have ample *amusement* and would do comparatively little harm. It is not generally known that birds destroy more insects and worms than they destroy grain, for which fact we have only to look to the Southern States. Some years ago it was believed that the blackbirds destroyed the rice, so they were shot down by hundreds, and finally driven away from several localities. The farmers were beginning to exult in their triumph, when lo! the rice had all been destroyed by the worms; and

as may be supposed, the blackbirds were all heartily welcomed back again. Innumerable proofs could be produced to show that birds are of a greater service to the farmer than is supposed, and they really are the "farmers' friends," and as such they should be regarded by the farmers, for they destroy more worms and insects than they do grains or fruit. As for those persons termed "good shots," I would recommend every farmer to chase them from his lands as if they were destroying the grain, for in destroying the birds, they destroy the grain.

Northern New York, June 25th. N.

For the New England Farmer.

CULTURE OF THE PEACH.

Mr. Cole:—Recent observations have induced the opinion, that with proper attention to selection of soil, location, and manner of cultivation, as fine trees can be grown and fruit raised, in this, as in any other part of the country. The localities in which we have seen the peach growing in the most promising manner, are on elevated ground, with a southern aspect, protected from northerly and easterly winds. For instance, the orchards of M. Pettingill, of Topsfield; A. Bradstreet, of N. Danvers; and E. Needham, of W. Danvers. Mr. P. has more than two thousand trees, in bearing state, of various ages. His crop was abundant last year, and promises well the present. The Crawford variety is a favorite with him, though he has many other kinds. His trees are situated on the southerly side of one of the large swells of land in Topsfield, and they appear to have a very little attention in their growth; except keeping the ground about them loose, and free of weeds, grasses, &c. These trees have endured the winter, without being headed down.

Mr. Bradstreet has about 700 tree cultivated within four years last past, all of which have a healthy, vigorous appearance, and many of them are loaded with fruit of the best varieties. Mr. B.'s orchard is in the immediate vicinity of Mr. Lawrence's, who has for years supplied the Boston market with some of the choicest varieties of this fruit, for which he has received one dollar a peck, and conferred a favor on the purchaser by selling at this price. The Jenks Rareripe is the favorite with Mr. Bradstreet. This class of trees flourishes best with him. We saw branches that sprung from buds set in the autumn of 1849, less than two years, on which are now growing more than two dozen peaches, which bid fair to grow to maturity —and several such on the same stock. If well matured fruit can be secured in so short a time, no one who has land unoccupied need despair of growing their own fruit.

Mr. B. is assiduous in his attention to his trees, in keeping the earth loose and well conditioned around them, and guarding against the approach of every species of destructive insect. He finds it useful to apply about two quarts of slacked lime about the roots of the tree early in the season. He makes no other application of manure to the land, except what is applied to the garden vegetables that are cultivated between the rows of peach trees. In the month of September he cuts down about one-half the growth of the season. He finds only about one-fourth part of the buds set arriving at maturity worthy of being encouraged. His trees are budded in the position in which they are intended to remain.

Of Mr. N.'s trees we have spoken of in a former communication. The fear of making a long story leads us to forbear saying more. We saw these orchards yesterday. P.

Danvers, June 28, 1851.

For the New England Farmer.

THE BEST KIND OF FOWLS.

Mr. Cole:—As I have for several years been more or less engaged in poultry raising, and have within the time kept nearly all kinds of domestic fowls common to this country, I have often been asked the question, "Which are the most profitable *hens* to keep?" but have not been able to decide fully which were the most so, 'till of late. And I now give you my decision,—hoping that some of your readers may be profited by experience:—

If your object be to keep hens for laying, *keep the pure Black Spanish Fowls.* Even if you pay a large price for them, they will soon pay you back the money with interest. But if your object be to raise chickens for marketing, cross the *Black Spanish* with the *Red Shanghae* or *Cochin China* fowls; as chickens produced from such a cross will attain a larger size and come to maturity much sooner than the clear Asiatic fowls. And those—if any there be—who doubt the above statement are cordially invited to visit my poultry yard and see for themselves.

As I am free to give you *my* experience in *poultry raising*, I hope others will give theirs as freely; and if there are really any better fowls than the above named—and it can be proved so—then I am willing to give up beat. Now, friends, do give us a little of your experience in the matter; and when convenient call and visit my *pure stock* of imported Spanish Fowls.

Yours, truly, J. Dimon.

Wakefield, R. I., July 1st, 1851.

For the New England Farmer.

SAVE YOUR MANURE.

Mr. Cole:—As considerable difference of opinion prevails in this vicinity respecting the management of manure. I take the liberty to write a few thoughts on the subject. My humble opinion is, that manure is better when thrown into a heap to decompose than when suffered to lie scattered about the yard exposed to sun, air and rain. How much is lost I do not know; will some one better versed in this matter let us know? But still we find some who are disposed to doubt the utility of keeping manure piled up, and they will tell us that a load of dry decomposed manure that has been exposed to sun, air and rain all summer, is worth more than a load of green manure; if they call what they can haul a load, I agree with them; but how many loads of the green manure will it take to make one of the dry?

My idea is, keep your manure as much from the sun, air and rain as possible, if you wish to retain its original strength; and if you think it too strong, mix swamp muck or loam with it instead of suffering it to waste to no purpose.

Come, brother farmers, if I am right, back me up; and if not, correct me, for information is what I want. S. Tenney.

N. Raymond, Me., June 24, 1851.

☞ The envious love nothing but the dead.

THE ECONOMICAL USES OF PEAT.

The Journal of the Highland Agricultural Society for the last quarter contains an exceedingly instructive paper from Dr. Anderson, chemist to the society, on the "Economical Uses of Peat." The researches of Dr. A. were directed to the object of determining, by careful experiments, the actual and relative powers of dried peat and peat charcoal to absorb and retain ammonia, and other gaseous bodies, which escape from night soil, stable manure, and other putrescent substances. His report fills fifteen pages in the journal named, and it ought to be reproduced in this country. We can find room only for the results obtained, with little of the details of the processes and experiments. We will state, however, that peat, for making coal, is cut into pieces equal to half of a cubic foot, and placed on trays or baskets of wicket-work, one above another, to dry. It is then carried to the buildings in which the burning takes place, where it is arranged over furnaces and still further dried six or eight days. The furnaces in which it is carbonized may be described as a sort of pyramidal boxes of sheet iron of variable length, and about five feet wide at the bottom, gradually tapering to about a foot at the top where there is a sort of vent-hole. These pyramidal furnaces are open at the bottom and stand in trays also of sheet iron. They are filled by tilting them on the sides, when the dry peat is carefully packed in, and retained in by bars which pass across the bottom; and after being fired, they are returned into an upright position. The combustion is allowed to go on until the flame ceases, which generally requires from five to six hours. Water is then let into the tray so as to exclude all air from the furnace, and thus extinguish the remaining charcoal. The reader will see that this is a very simple apparatus and must be effectual. The water in the tray does not rise high enough to reach the peat or coal in the furnace. When it is cooled down sufficiently, the coal is removed and put through large sieves, the large pieces being employed as fuel and the fine powder as a deodorizer. In Ireland, the cost of production appears to be as follows:

	£.	s.	d.
Draining the bog and cutting the turf to produce a ton of dried peat,.....	0	1	6
Packing on the trays and wagons, and conveyance to the furnace-house,.....	0	2	0
Wear and tear, &c.,.....	0	0	6
	£0	4	0

It requires four tons of peat to make one ton of coal.

	£.	s.	d.
Four tons of peat, at 4s.,.....	0	16	0
Labor and expense of burning,.....	0	4	6
Grinding and sifting,.....	0	2	6
	£1	3	0

By the above figures it will be seen that a ton of peat coal costs nearly six times more than a ton of air-dried peat.

We must now pass over much that is valuable to reach the comparative power of dry peat and peat coal to absorb ammonia.

"*Experiment* 1. A glass tube about half an inch in diameter, had a piece of cloth tied over its lower end, and was filled to the depth of about twelve inches with Irish peat charcoal and a solution of ammonia, containing 2.42 grains to the cubic inch, poured into it. The first drop of fluid that passed through it was as distinctly alkaline as the original fluid, indicating that no rapid or abundant absorption had taken place."

In the second experiment, putrid urine, which had a distinctly alkaline reaction, was used, and the first drop was distinctly alkaline. The liquid, however, lost both its smell and color in passing through the coal.

In the third experiment, a small quantity of ammonia, in solution, was poured over 1000 grains of charcoal and carefully stirred in. The smell of ammonia *did not disappear*, even after it had been covered up some time, and a test paper suspended in the upper part of the vessel was strongly affected. An additional quantity of ammonia was added, until, in all, 1.7 cubic inches had been used. This quantity of the solution contained 4.11 grains of ammonia, and it was consequently obvious that peat charcoal cannot absorb one-fourth of one per cent. of ammonia—4 parts in 1000.

Without pursuing these experiments farther at this time, suffice it to say, that they contradict and seem to overthrow all previously conceived notions of the relations that subsist between ammonia and charcoal; but if these notions are really erroneous, the sooner they are overthrown the better.

1000 grains of surface peat—not charred, but dried at a temperature of 212°—took up 8.3 cubic inches of a solution of ammonia, equal to 20.08 grains of the alkali, or 1 per. cent of the peat. 1000 grains of peat, dried to the same degree, taken 4 1-2 feet below the surface, took up 21.78 grains of ammonia, or over two per cent. These experiments prove that thoroughly dried peat imbibes some eight times more ammonia than the open peat charcoal. Hence, dried peat is one of the best substances known to mix with manure of all kinds, and for bedding for horses, cattle, sheep and hogs, to absord their urine.

Dr. A. experimented to determine the relative power of "a good wheat soil" and dry peat to absorb and retain ammonia. The soil was found to contain 0.186 per cent. of nitrogen, (the fertilizing base of ammonia) and only 0.203 per cent. when fully saturated; indicating the absorption of only 0.017 per cent. under the circumstances. As peat absorbs about 2 per cent., the difference is greatly in favor of the latter.

The readers of the Farmer in 1845 and 1846 will remember our urging the importance of digging and drying swamp muck for bedding for domestic animals and to absorb all liquid and semi-fluid manure. When applied alone, the experiment made by Mr. McVean, and others in Wheatland, did not indicate so high a value in muck or peat as Prof. Norton suggests in his excellent letter in our last.—*Genesee Farmer*.

HINTS UPON CHEESE MAKING.

Mr. Editor:—Being a constant reader of your most valuable paper, I have often seen communications from farmers on the subject of dairying, but principally on butter making. On this I shall not attempt to make any remarks, but as my wife has the name of making good cheese, I thought I would give a few hints on that part of the subject. One of the greatest errors committed by our cheese making community is this—they hurry the process too much. By this means quite a portion of the richness of the cheese is lost. Another error is this—they strain their milk in the evening and let it stand over night. There will be a separation

take place. Some are cautious enough to take off the top, (meaning the cream.)

Our method is the following :—As soon as the milk is brought in at evening, strain it into a brass kettle prepared for that purpose, (as we think brass superior to wood to set milk in,) and as soon as the milk is strained the runnet is put in. Let it stand till the curd comes; then cut it and let it stand till morning, when it will be settled. The whey will then be as clear as spring water. We then dip off the whey, disturbing the curd as little as possible; then take out the curd into a strainer, strain the milk into the same kettle, and put your runnet in as before, not hurrying it by any means, for by so doing you will extract quite a portion of its richness; after it has thoroughly, drained we cut it into thin slices and put it into a suitable vessel and pour on scalding water; let it stand until it gets about cold; then take it out, spread it, and let it lie until it is cold. After this, chop it fine, salt it just right, and it will then be ready for the hoop and press. In all these operations, we repeat, it should not be hurried. In pressing cheese, you cannot press it too much. It is good economy not to make a cheese to weigh more than twenty or twenty-five pounds, as one of that size is more saleable than larger ones S. L. M.

—*Maine Farmer.*

POULTRY.

There seems to be no branch of domestic economy less understood than profitably raising poultry. When we say profitably we do not speak of their value in dollars and cents, for we hold that every dwelling, however humble or splendid it may be, should have a few chickens around them; for there are times in almost every family, both in sickness and health, when money cannot buy the little luxuries that chickens give us. What profit is there in keeping fifty or a hundred hens without a corresponding supply of eggs? Most people think that chickens must pick their own living, and yield a good supply of eggs in the bargain, but we have found that chickens forced to roam for their daily food have little time or inclination to lay; and those who expect a good supply of eggs without generous feed, may as well plant their choice vegetable seeds in a sand bank, and look for tender, delicious vegetables.

We have some little experience in the "henery," and have found a great secret in getting a supply of eggs through the whole season, but not in driving the hens uphill, or in feeding them exclusively on gravel, or in supplying them with chalk nest eggs. The whole secret consists in giving them plenty of food, grain and flesh; any of the grains will answer, as the chicken's mill is very convenient. For six or eight months in the year the chickens will supply themselves with animal food, in the shape of insects, but the rest of the time feed them regularly with flesh as well as corn. Boiled potatoes is an excellent food for fowls, but with it they want grain of some kind, and flesh also. In our long, hot summers, poultry are inclined to become lousy; but if clean, good ashes are placed convenient to the hen-house, the hens will dust themselves in them until the vermin disappear. Nature is their teacher, and hers is an unerring guide. A good shelter should be provided for the chickens to roost under; the manure of chickens, properly saved, will repay all expenses of feeding. It is a great error to crowd too many chickens together.

We know nothing of the patent chicken-hatching machines, but we know that fifty hens will lay more eggs and raise more chickens upon one lot or enclosure, than will one hundred. They do not flourish in a crowded state, neither will hens lay as well when great numbers are together. A hen is a right prudish old lady, and affects great modesty in selecting her nest, and laying her eggs, always taking a quiet, sly place, when it can be found. We say then to our readers, keep no more fowls than you can, and will feed well. Provide good shelter for them, save all the manure, and your gardens will pay in their increased productiveness for all your culture of chickens; and when beef resembles sole leather, and bacon becomes stale, young chickens and fresh eggs will prove a luxury indeed.—*Soil of the South.*

ON THE USE OF MULES.

1. Mules, on a generel average, live more than twice as long as horses. They are fit for service from three years old to thirty. At twelve, a horse has seen his best days and is going down hill, but a mule at that age has scarcely risen out of his colt-hood, and goes on improving till he is twenty. Instances are recorded of mules living sixty or seventy years, but these are exceptions. The general rule is that they average thirty.

2. Mules are never exposed to disease as horses are. Immense sums of money are annually lost in the premature death of high-spirited horses by accident and disease. The omnibus lines in the city of New York have not been able to sustain their losses, and are beginning to make use of mules, as less liable by far to accidents and disease. This results from the next consideration, which is that—

3. Mules have organs of vision and hearing far superior to those of the horse. Hence they seldom shear, and frighten and run off. A horse frightens, because he imagines he sees something frightful; but a mule, having superior discernment, both by the eye and ear, understands everything he meets, and therefore is safe. For the same reason he is surer footed, and hence more valuable in mountainous regions, and on dangerous roads. I doubt whether on the Alpine paths a mule ever made a misstep. He may have been deceived in the firmness of the spot where he set his foot, but not in the propriety of the choice, all appearances considered.

4. The mule is much more hardy than the horse. A pair of these animals, owned by a neighbor of mine, although small in size, will plough more land in a week than four horses. Their faculty of endurance is almost incredible.

Another very important fact is, that in the matter of food, a mule will live and thrive on less than half it takes to keep a horse. The horses of England, at this time, are consuming grain which would save the lives of thousands of British subjects. In a national point of view, the agricultural interest is so great, that the greater the demand for grain of all kinds, the better for the farmer. But yet individual farmers, who are in debt, and whose land is not improved, would find it profitable, in the course of ten years, to have the labor of a full team, and save one-half and more of the food necessary to keep it up, as might be the case in substituting mules for horses.

JENNEY'S SEEDLING STRAWBERRY.

This is a new variety, raised from seed a few years since by a Mr. Jenney, of Fairhaven. It is a strong, vigorous grower, perfectly hardy, and very productive. The fruit is rather large, and of the highest quality; in our engraving many of the berries are represented as they were, green and only partially grown.

The fruit is rather large; roundish-conical; deep red; flesh rather firm, juicy, slightly acid, but of a fine high flavor. Pistillate. Ripens ten days or a fortnight after Early Virginia, about the time that variety is gone, and forms a good succession with it. It is several days later than Hovey's Seedling.

For the New England Farmer.

EXHIBITION OF FAT CATTLE AND SHEEP, IN FRANCE.

Mr. Cole:—The great cattle market in France is held weekly at Poissy, and approached by railroad, about twenty miles out from Paris.

Annually, an exhibition of fat cattle, sheep and swine, takes place at Poissy, under the direction of the minister of agriculture and commerce, who is president of the institution.

I was present on the 14th of April last, at the great exhibition; a few swine, about 1,100 fat wethers and 140 beef cattle were upon the ground, The cattle and sheep were all in high condition, and a portion of them as good as I ever saw. I think the highest prize of 1,500 francs was awarded to the conductor of the model farm at Gregnou, for a fat ox of the short-horned Durham breed. The cattle generally were very large and fat, but many of them rather coarse, descendants of the Normandy breed. The sheep, on the whole, excelled anything I ever saw, for size and fatness. Most of them were a cross of the Merino upon the natives of that country, and I judged their live weight to average over two hundred and thirty pounds each. Very few of the English mutton sheep were at the show, though liberal premiums of 500 francs were offered.

The highest prizes of 800 francs were awarded to the French Merinos and their grades. Upon looking at their size, fatness and large beautiful forms, I could not imagine why they have never been introduced into England or America. It is but a few years since these large Merinos have been kown in America; and while in England, I made inquiries of the Farmer's Club, but they could give me no information about them.

The swine at Poissy were rather inferior; the English breeds were the best; but any town in Vermont could have beat them in size or quality.

All of the stock were covered by tents, very costly, commodious and neatly arranged. The premiums awarded amounted to 21,900 francs, paid over by the royal commissioner to each person as the names were called off by the secretary. As each person received his prize, he was cheered by the spectators, and a band of music played to heighten the entertainment.

The model farm at Gregnou is owned by a company of wealthy citizens of Paris. It contains about 500 acres, enclosed by a wall 12 feet high, laid in lime mortar. More than half of the farm is subjected to the plough, and all of which is in very high

cultivation. There is an artificial pond in the centre, of about ten acres, well supplied with fish; carp and eels. Two days in March are devoted to taking fish from this pond. I happened to be present when three tons were taken by a net at one haul. Every department of this farm was conducted with a system superior to anything I ever saw in our country, and at a profit, I have no doubt, to the owners.

Their large and commodious barns of stone were well filled with fat cattle and sheep. I saw 200 wethers there of the Merino species, that would, in the Boston market, command from ten to twenty dollars per head.

Very respectfully, yours,

SOLOMON W. JEWETT.

Weybridge, Vt., July 1st, 1851.

For the New England Farmer.

RENOVATING OLD APPLE TREES.

MR. COLE:—For several years past I have read in our agricultural papers many articles tending to show the profit of an increased attention to old and decaying apple trees. The *gist* of these communications would seem to indicate that old, sward bound, unproductive, and even diseased trees, might be regenerated and become profitable,—if the original fruit were good; and, if otherwise, it might be made good by grafting—by cultivation of the soil in which they stand, by pruning, washing, scraping and liberal manuring about the roots.

Some years since I purchased a small landed estate in this town, upon which were no fruit trees, excepting two apple trees, in the green sward, apparently about three-fourths grown, and believed to be from twenty to twenty-five years old. These trees, although not vigorous, did not exhibit any strong marks of decay. On inquiry, I learned that one of them was a greening, and had formerly produced a great variety of this fruit; and that the other bore small, and nearly worthless apples. It was an object for me to obtain fruit in the shortest time possible, and to effect this purpose with greater certainty, I transplanted many small apple trees, two years from the grafting, and also attempted to resuscitate and invigorate the two older trees. The ground around them was ploughed and cultivated for four years; or from 1847 to 1850, inclusive. The land, generally, was well manured, and an extra load the first year was spread about the roots of these trees; and for the three following seasons they were enriched in addition to the manuring of the land, either by material from my barn cellar, or with wood ashes.—They were carefully pruned by an experienced hand and thoroughly washed with a solution of potass, made by dissolving one pound of the alkali in two gallons of water. They have been scraped each year, and washed, sometimes with very strong soap suds, and at others, with lime water,—and no worm has been suffered to live on their branches. The tree, producing worthless fruit, was grafted in '47; but the greening was left untouched in this respect. The greening has not, under this treatment, produced one fair apple! and the few which have grown upon it were small and unsightly. The grafted tree produced last year about half a dozen fine apples; but this year the fifth season since I have had the tree under care, not one can be found on its branches.

My small trees, transplanted four years ago last spring, are very thrifty and promising. Many of them already produce fruit; and some of these have trunks of twelve and fifteen inches in circumference, with large umbrageous tops. From this orchard of young trees I could select perhaps fifty, any one of which I should prefer to either of the large, unreformed specimens. The expense of extra labor, and of fertilizing materials, expended on these older trees, in four years, cannot be less than $8 or $10; a sum sufficient for the purchase and careful transplantation of at least twenty young trees of choice fruit.

My own experience, it will be seen, is not in favor of the expenditure of time and money to recruit old apple trees; undoubtedly the experiment sometimes proves highly successful; but still I am inclined to believe that if the result of *all* the efforts of this character were spread before the public, they would not, in the aggregate, afford much inducement for continued efforts of this nature.

ABRAHAM T. LOWE.

Bridgewater, July 4th, 1851.

For the New England Farmer.

PROGRESS OF KNOWLEDGE.

MR. COLE:—There is no such thing as a fixed position for man in this world. A man must be going forward or backward; for he who is not learing is certainly forgetting what he has learned before, if he ever knew anything. If we do not strive to go beyond those who have lived before us, we shall be inferior to them. No generation can possibly transfer its precise measure of knowledge to another generation. In passing from the hand of age to the hand of youth, many small particles will slip through the fingers.

The only way to keep up the standard and character of our agriculture, where our fathers had their standard, is by striving earnestly to go beyond them. We all fall far short of our aims, if they are elevated as they should be.

Those who have gone before us found the soil which we now cultivate in a very different state from that in which they left it to us. They encountered their difficulties, and we must also meet ours; but it is useless for us to suppose that we can cultivate the soil as they cultivated it, and obtain such rewards for our labor as they obtained. New difficulties, which they never encountered, and new questions which they never studied, are open to us. We may drink from the cup of knowledge and be strengthened by so doing; or we may murmur at our hard lot, and censure the hand of Providence.

Agriculture is to have a place in the study of youth in our schools. Professor Johnston's "Catechism of Agricultural Chemistry and Geology" is to be recommended by the superintending school committee of this, and probably of some other towns, for introduction to our common schools.

Every boy that grows up in our republic, whether his parents are rich or poor, ought to know how to cultivate the soil. Then, if he engaged in some other pursuit from choice, but did not meet with success, he would not be cast upon the world in hopeless want, to beg or steal. He would exercise his rightful lordship, and with hoe or spade, or axe, go to a ready task with cheerfulness, and live and learn, and every day grow wiser, and ev-

ery day grow better, just as he would every day grow older.

But what a speculating host are seen! How many pine in want, because they are lacking knowledge. Up with you, idle dreamers; there's much to learn, and there's much to do, in this wide world of ours. There's land enough in Yankeedom, that lies untilled for want of workers. There is knowledge to be gained, of the most important matters. Science offers her aid to agriculture Shall we wait for the establishment of Agricultural Colleges? Are there not now many engaged in cultivating the soil who could take students and teach them? I observe a disposition to wait for some great and renowned, or, at least, until some extensive and expensive preparation is made for an agricultural school, before we can have one. Can we not have farm schools—private instruction given to young men—under the direction of some of our most scientific farmers? Will not the editor of the N. E. Farmer give an opinion upon it, and, if agreeable to his judgment, put the idea along a little. It appears to me that a few smart and active boys might make up a good class, and greatly aid the farmer who might for proper considerations be interested to teach them.

Mason, N. H., June, 1851. C.

Remarks.—We have occasionally given our opinion on the subject of agricultural education. We think that one or several agricultural colleges in our State would do no more to enlighten farmers generally, than our present colleges would do for the education of the great mass of people without common schools and academies.

We should have proper text books to be used in our common schools, and to be studied in private families, in order to diffuse useful information over the whole land, affording to the most humble the advantages of instruction.

For the New England Farmer.

FRUIT, INSECTS, POTATOES, &C.

Mr. Cole:—I send you a few memoranda respecting my small enclosure devoted only to culinary vegetables and fruit trees. Facts are best stated when fresh in the recollection, and I would take leave to suggest that if farmers and gardeners would record, from time to time, on a journal for their own use, all such important facts relating to their business as occur under their own observation, they might thus collect valuable materials to aid the general interests of agriculture.

Fruit Trees.—Their buds swelled early in April, and the blossoms were ready to expand, but were kept nearly stationary for an unusually long time by cold weather and several freezing nights. May opening warm, they rapidly put forth and in profusion, but the petals were shed sooner than usual. No caterpillars appeared. Examined for borers and cut out and killed them and applied ashes liberally to the roots, and afterwards scraped the apple trees and rubbed them and the other trees freely with common soap. Also mulched several with forest leaves to kill the sod around the bodies. Around a plum tree, in full bloom, spread a thick coat of leached ashes and stamped them smooth and hard, to warn curculios that they would have no chance for their progeny to burrow.

Results thus far.—The apple trees of vigorous growth cast their apples to a great extent, as if propense to produce wood rather than fruit, as they have heretofore done. The clusters of blossoms, the petals having fallen, were not unfrequently attacked, together with the leaves adjoining, by a web worm folding up leaves, and devouring their life. A portion of apples were set, but from the size of a pea and onward the crescent mark was placed upon them, sure stamp of the bug destroyer. They are falling fast, the last week in June, and few or none will escape. Cherries were punctured quite as soon and as extensively perhaps. The plum tree cast its fruit almost wholly. Curculios followed, and probably have already made sure of the plums that set, as they are falling fast. Caught a few upon a sheet by rapping the tree, but gave up the contest with the foe, for the ground was won and the victory secured already.

The peach tree put out curled leaves, and many buds after a sickly setting of leaves exuded gum, and many extreme twigs died. Considerable fruit is set, and healthier twigs and leaves are growing, but the blasting of leaves and the numbers already fallen are remarkable. I observe likewise a progressive decay and fall of apple tree foliage, of the earliest growth, which I can trace to no known cause. My experience thus far since attempting to raise apples inclines me to despair wholly of success, in the pent quarters of a small enclosure, especially with neighbors' trees adjoining, breeding in current bush hedges all sorts of destroyers. Indeed the original grant of every green herb, to the beast, the fowl and the creeping thing for food, cannot be abrogated, and plainly from providential interposition, fruit trees are not exempted, for man's exclusive use and enjoyment.

Potatoes. — Planted Peach Blows principally, for they rotted least and kept best last year. Some are upon a plat manured with vegetable compost, and some on land where turf-turned soil yielded well last year. Three other kinds are on trial. A third of the peach-blow hills are struck with the curl-top disease, and to save the ground a bean hill stands beside them. The other kinds are free from this symptom. The corn-stalk borer enters some stalks and kills them, and for two or more weeks the yellow, striped-bug slug-breeder has been very industrious laying nits, and the progeny are busy in their work, consuming the leaves, to the very best of their ability. The appearance of many healthy hills of peach-blows, and all of the other sorts, is thus far promising. The result is with the Ruler of the seasons. Lost in the multitude of counsellors, I have followed most of them, yet have planted a few with forest leaves and small hemlock branches, to gratify my personal curiosity.

Salisbury, Con., July 1st, 1851. J. Lee.

For the New England Farmer.

CISTERNS FOR MANURE.

Mr. Cole: — Being about building a cistern for saving liquid manure, I would inquire, through the medium of the Farmer, if frost will have any bad effect on hydraulic cement.

Yours respectfully, S. W. C.

Deer Isle, Me., June, 1851.

Remarks.—We have no definite information on this subject, but in directions for making cisterns of hydraulic cement, it is generally recommended to place them below the region of the frost. Will some of our readers who are well acquainted with the above subject, communicate their views?

For the New England Farmer.

WHITE WEED.

Mr. Cole:—Please inform your correspondent, that ten years ago I had white weed in several spots in four small fields and a pasture, and that I have destroyed it entirely. I followed it for four or five years with a spade, dug up the sods and buried it, but I found it still gaining upon me. I suppose the roots spread farther than I dug, and sprouts came from the roots that were left. I finally resolved to try salt, which has succeeded perfectly. I cannot find a single plant on my farm. I went over my land when it was in bloom, picked off every blossom (for fear there might be seeds in them) and buried them, and covered the ground with salt for several inches around each plant; the second year, there were but few plants to be seen; the third, less; the fourth, but one plant; this year is the fifth, and none to be found. The cost and trouble is trifling, and if my land was covered, I would undertake its destruction. If your correspondent will inform me of as cheap and certain destruction for witch grass, I shall be much obliged. Stephen Adams.

West Newfield, Me., July 2, 1851.

For the New England Farmer.

BREEDERS' CONVENTION.

Mr. Editor:—The breeders of Vermont have agreed upon a State Show and Fair to be held at Middlebury the tenth and eleventh of September for the exhibition of stock, where there will be a large collection of fine horses and sheep for sale. The celebrated Morgan horse, Black Hawk, and two hundred of his colts, will be upon the ground. Fine specimens of stock from the Old Gifford Morgan and many of the Hamiltonian and Eclipse colts, and descendents of the Old Messenger. In fact, it will be one of the best exhibitions of the "Yankee harness horse," and French and Spanish merino sheep, that has ever come off in America. We shall have a good display of cattle too.

Those who wish to buy a carriage horse of great speed and endurance, had better attend this fair, where there will be a good opportunity to select from a large number, and many a fine stallion will be upon the ground, of good action and fast on the trot. Arrangements will be made with the different railroad companies to carry passengers to and from Bosten and New York at half price.

A Breeder.

HOW TO MAKE VINEGAR.

There are many great notions entertained among our farmers about making vinegar. The grand old plan was to put out cider, or water and molasses, in a cask, to the sun and expose it to the luminary with a bottle in the bung hole. There are still as many ideas entertained about making vinegar as there are about making soft soap, and *luck* is frequently held to be the umpire who decides whether it will be vinegar or no vinegar.

The reason why cider or other fluid mixtures change their nature and become vinegar, is owing to a transformation of the particles and then a separation of one or more, and a combination of others. The oxygen of the atmosphere, although it is not now as was once believed to be, the only acidifier, still it is the great one, and vinegar is formed by the cider parting with its carbonic acid gas, which it cannot do without absorbing oxygen. The reasonable way, then, to make vinegar rapidly and surely is to expose the cider as much as possible to the atmosphere. The new way, and what is supposed by many to be a patent way to make vinegar, is to let the cider percolate over a very exposed surface. This is the way they make it in the vinegar manufactory. The apartment where it is made is freely exposed to the air, and is kept at a temperament of about 60°. The cider is left to run in small streams into troughs with bottoms full of small holes, then from that over very fine wood shavings, such as soft maple, and let these be fully exposed to the air and resting on a slatted bottom made of clean bows or laths, below which the vessel for receiving it should be placed; vinegar can be made from molasses and water, grapes, corn-stalks, beet roots, and many other substances, by this process, in a few days. Cider, however, makes the best vinegar. Many modifications (for cheapness) of the above plan may be resorted to, the grand secret being the exposure of the liquids to be changed into vinegar, in layers or strata, to the oxygen of the atmosphere. There is not a farmer but with a cask, an old tub, and a few shavings, could make good vinegar in one-fifth of the period now required by the common plans in use for that purpose. In those vinegar factories introduced here by Frenchmen, the plans adopted are those we have narrated.—*Scientific American.*

Remarks —It is a general opinion that cider makes the best vinegar, and it is probably the best substance generally used for this purpose; but maple sap is superior to cider for vinegar. The juice of blackberries makes a very superior vinegar for table use, retaining the beautiful color and fine aroma of the fruit. The juice of the little wild red cherry, and many other small fruits, make excellent table vinegar. In the days of our childhood, in a new country, all the vinegar used in the family was made from the wild fruits, or from the sap of the maple. And in this respect there has been no improvement in the quality of vinegar, but a deterioration.—Ed. N. E. Farmer.

BLUE-STEM WHITE WHEAT.

I suppose you and your readers have heard and know something about the "Blue-Stem White Wheat" which is growing so abundantly in Pennsylvania, Ohio, Maine, Maryland, and even in the Southern States. It is a very large and beautiful species of grain, and many claim the honor of having discovered it first. But I believe there are very few who actually know the original discoverer, or anything at all relative to its origin. I have seen stated in different papers, the names of persons who were supposed to have discovered it, and spread it over the country; but by no means have they given credit to the right person. My father is personally acquainted with the man who

first found it, and he ought to have the credit. For these reasons I have thought it not unfair to announce to the public, through your columns, the name of the true original discoverer, the time, place and history of its origin.

It was discovered in the winter of 1836, by Henry Glahs, son of George Glahs, whilst at work one day threshing wheat. (George Glahs lives near Freeburg, Union County, Pa.) He happened to observe one head quite different from the rest. He picked it up and shelled it, and found it to contain much larger and finer grains than the other heads; part of it being already shelled before it was taken up. He only retained sixteen grains. These he put in his desk to preserve, with the intention of sowing them the coming season. When the time arrived, and his grain already green in the fields, he thought of his new seed in the desk. Immediately he planted the sixteen grains, which brought sixteen heads for the next year; the third year brought nearly half a bushel; the fourth year he gathered from the products of the third six bushels, and the fifth year the product was one hundred and ten bushels. In a few years all the farmers in the neighborhood raised it in abundance. It also soon spread over the State, and, as I before said, is cultivated largely in many of the other States.

At the same time, the Hon. John Sydney, then a member of Congress, addressed a letter to my father, which contained an order for a certain amount of this wheat, to be sent to Baltimore for some Virginia farmers. The amount for which the order called, and some more to the amount of two thousand bushels, were sent down by boats, most of which was sold to the Virginians for seed. Mr. George Glahs, on whose farm it was first cultivated, is still living. He has attained the age of seventy-three.—J. W. G.—*Selin's Grove*, 1851.—*Philadelphia Dollar Newspaper.*

THE PURE MERINOS OF FRANCE.

S. W. Jewett, Esq., of Weybridge, Vermont, whose name has lately been mentioned in the papers in connection with the importation of foreign sheep, has sent us samples of the wool taken from the fleeces of six yearling rams, which, since their arrival in Weybridge, about ten days ago, were shorn in the presence of several gentlemen interested in sheep raising. The fleeces were of less than eighteen months' growth, and the average *twenty and a half pounds* each, of a fine, even quality of wool, and free from long hairs. The samples may be seen at this office. Mr. Jewett says that this race of large, beautiful animals will compete successfully with the English breeds for mutton-sheep, owing to the great size of their frames, and the fact that their lambs mature much earlier—the ewes being remarkably large milkers. He says that while in France he actually ate of cheese made from the milk of these ewes. He mentions among the qualities of these Merinos, that they take on fat readily, and are of an exceedingly quiet disposition, a trait which is now hereditary, and is attributed to the fact that, for more than a century, they have been attended by shepherds, and have not been permitted to roam at large. Mr. Jewett says there are now but five flocks in France of the pure Merinos, which descended from the government flocks in Spain, and that a good deal of excitement prevails in France at the present time, among the breeders of these sheep, in consequence of visitors from all parts of the world, led thither by the great exhibition in London. He saw there a Prussian, by the name of Jachin, who owns a flock of 44,000, and two men from Australia, one of whom owned 33,000, and the other 45,000 sheep. These men paid as high as $500 for rams, to be sent 8000 miles over the water. Mr. Jewett's purchase is the largest, as to amount of money, ever made of foreign live stock by an American. Several of the best farmers of Addison county have taken a joint interest with Mr. J. in the flock, and they design to distribute them, as far as they may be wanted, among the wool-growers of Vermont. The whole amount of money expended on this importation is about $30,000.—*Burlington Sentinel.*

ECONOMY OF FRUIT.

Every man of family who keeps a good supply of stewing and baking apples, of his own raising, saves a great many hard dollars yearly, otherwise to be paid to the miller or butcher. Or if he raises his own grain and meat, an equal amount is thus reserved for market. Then, what a valuable addition to the comfort, variety and luxury of the table! By the first of summer, the thick trusses of strawberries begin to redden in the sun; and half a dozen quarts of this melting crimson fruit may be had each day for the table, from as many half-rod beds. Cherries, currants, and raspberries, continue through the first half of summer, followed by early juicy apples; rich, bloom-dusted plums; golden, perfumed apricots; and buttery and melting pears.

Now, we do not say, as some mistakenly remark, that this fine and delicious supply costs nothing after the trees are planted; for good fruit cannot be relied on, unless the ground is well cultivated and manured. But it does not cost half as much to cultivate an acre of fruit, as an acre of potatoes or corn; while the amount obtained is greater than either; and all ready for the table, without going through the process which the grain crop requires, of threshing and winnowing, and grinding, and kneading and baking.

By planting rich, high-flavored apples for stewing and for pies, instead of poor and insipid ones, each family may save fifty, a hundred, or two hundred pounds of sugar annually, in sweetening and spices. A friend of ours finds it cheaper to buy good fall pippins for fifty cents a bushel, than poor sorts sold as "cooking apples," for fifteen cents a bushel. He uses the Talman Sweeting largely, for baking and for puddings, and thinks that an Indian apple pudding, made by this natural sweetening, the cheapest and best pudding in the world.—He saves from $75 to $100 annually in the cost of his table, by his fruit.

DAIRY STOCK.

A writer in the Agricultural Gazette recommends the following mode of managing a milk stock, the principles of which are followed by the best milk-selling farmers. Curry and wisp the cattle once a day, give water twice a day, when in the stall, and an hour's airing in the yard. Let the food be given to them exactly at the same hour every day; and likewise the water. When food is given and the cow does not take it readily, take it from her and let her be without any until next

feeding time,—this is the way man should do to remain in health.

Never pamper immediately after calving. At milking time, the master or mistress should assist, or be present, in order to see that the milkers milk briskly and without talking. A great deal depends on these two points. A milker may sing or whistle, but not talk, but then it must be tunable. There is an old saying that "the last drop is the richest," and should be drawn. This is wrong, for the last drop from a good milker never does come. I have seen milkers pulling at the udder for the "last drop," while a weekly constituted cow has been made nearly sick.

A mother who has suckled children can understand this, and yet I have known thoughtless mothers to forget it when milking cows. In stripping a cow a milker finishes with his right hand, by taking the teats in rotation, and getting what can come out; and when he gets hold of a teat, if he can get milk twice, he must try that teat again after he has gone them round; but if he can only get milk once, he should give up; for the last drop which ought to be taken is then come; and if more after this is got, it is a pull upon the milk veins, and is no richer than milk taken at the first, or rather it is of an average quality.

If a farmer intends to follow his business to the best advantage, either he or his wife must themselves milk, or be present at the time of milking. One of the best managers I am acquainted with always did the stripping himself, and left the others to do the regular milking.

LABOR SAVING.

It is a notorious fact that many of our farmers regard but narrowly their own best interests. They do not consider what great losers they are by permitting things to go as they do by sixes and sevens. I was, several years ago, paying a visit to a friend, by whom I was taught a lesson I shall not soon forget, in reference to the advantages gained by the farmer in having a place for everything, and by keeping everything in its proper place.

The friend of whom I speak was a farmer in moderate circumstances, yet he had eveything around him arranged to the best advantage. His house stood upon the summit of a hill. A short distance from his kitchen door he had a high wall built, surrounding his pig-sty, the location of which was at the bottom of the hill. Beside this wall, and upon the top of the hill, he had his granary erected, adjoining which was his tool-house, where might be found every implement suitable for agricultural purposes, and also a work-bench, containing many tools used in carpentering. These were so arranged that not one of the family dare misplace them; yet all had the privilege of using them, but each one knew that they were to be returned to their appropriate places in the tool-house as soon as they were done using them. I saw at once how much was gained by adopting a system of this kind. Having a place to keep each article in, much time would be saved hunting it up when wanted; as he assured me there was not one of his family but could go and lay their hands upon any article they wanted in the dark.—*Dollar Newspaper.*

☞ We should be careful to practice, and treat the humblest menial with courtesy as delicate as we would show the children of affluence and honor. So shall we transfuse in them a corresponding refinement which will tend eventually, perhaps, to make them purer in morals and more elevated in mind.

BEAUTIFUL EXTRACT.

One fountain there is, whose deep lying vein has only just begun to throw up its silver drops among mankind—a fountain which will allay the thirst of millions, and will give to those who drink from it, peace and joy. It is knowledge; fountain of intellectual cultivation, which gives health to mankind—makes clear the vision, brings joy to his life, and breathes over his soul's destiny a deep repose. Go and drink therefrom, thou whom fortune has not favored, and thou wilt soon find thyself rich! Thou mayest go forth into the world, and find thyself everywhere at home; thou canst cultivate in thy own little chamber: thy friends are ever round thee, and carry on wise conversations with thee: nature, antiquity, heaven, are accessible to thee! The industrious kingdom of the ant, the works of man, the rainbow, and music's sweet chords, offer to thy soul hospitality.—*Frederika Bremer.*

AYRSHIRE STOCK.

We had the pleasure a few days since of examining the full blood Ayrshire stock at the N. H. Asylum for the insane. It consists of a bull three years old, a cow we think a year older, and two heifer calves. They are beautiful specimens of the breed. The bull is a noble animal with all the fine points of the true Ayrshire about him, very gentle and large of his age. The most attractive of the lot is a calf six weeks old, that appeals to our senses of the beautiful very strongly. Dr. McFarland has been offered thirty dollars for the calf as it stands, but declines the price. It is destined to be a noble cow. We advise all who wish to see good specimens of the Ayrshire blood to visit these at the hospital.

Mechanics' Department, Arts, &c.

YOUNG MECHANICS—THE WAY TO RISE.

We stated last week that few of our mechanics rose direct from the workshop to important places of trust in the republic, and we also stated that but a few of the great many were qualified to fill important situations even in connection with the trades they learned. Why is this? Is it not possible for men to be as well educated in the workshop as anywhere else? Do mechanics not possess the same abilities as those who follow the profession? Yes. Well, then, why is it they are not in general fit to march out from the workshop to fill the highest and most honorable offices in our country?

The answer is, they do not in general try to qualify themselves to fulfil their proper duties, as citizens of this great republic. We suppose that our mechanics themselves would be planet-struck, if it was proposed to run one of their number for President, but it is not our object, except in an angular direction, to point to political situations; we hope the point, however, will not be lost.

We have alluded to the absence of a taste for sound and solid reading among our mechanics, and we have now to complain of the absence of a

pure and lofty conversation. The majority of our young men belong to fire or military companies, and during their spare moments, their conversation consists more in what this and that engine can do, &c., and not about how it can be done. Idle, vain and frivolous conversation has a very injurious tendency, like reading bad books. A pure conversation and gentlemanly discussion of useful questions, has a very elevating tendency. Young mechanics, we speak to you, in all earnestness; if you wish to rise, you must be enthusiastic about your business, and in the pursuit of knowledge connected with it. In your spare moments, endeavor to seek enjoyment in talking about the principles of your trades, seek to know the why and the wherefore of everything connected with them, and whatever your hand findeth to do, do it well and with all your might. Do not be eye servants, do not use profane language, and give yourselves the best education you possibly can. Every machinist should learn to draw, so should every carpenter, and do not be content until you fully understand, and can construct every machine, apparatus, or whatever it may be, and can take charge of and superintend every branch of business connected with your trades. Men possessing such qualifications are sure to rise. And what is to hinder you from possessing such qualities, along with a character for honesty, fidelity and ability? Let every one put this question to his own heart.—*Scientific American.*

MACHINE FOR PRINTING OIL CLOTH.

Mr. Simeon Savage, at the Lowell Machine Shop, has succeeded in the invention of a machine for printing floor cloth, which promises to be of great utility in the manufacture of this most desirable of floor coverings. We will not attempt any description of the construction of this machine, as no patent has yet been obtained for it, although one will be applied for as soon as a model can be built. This machine is capable of printing 2,000 yards of floor cloth per day, in eight different colors at the same time, and by the same principles twenty colors could be as readily printed. We saw a specimen of floor cloth printed by it, which warranted us in the belief that more perfect goods can be made by this machine, which is worked by power, than can be made by hand.—*Lowell Courier.*

BALL & CO.'S INDESTRUCTIBLE WATER PIPE.

We learn that the citizens of Rockland, county of Lincoln, Maine, have contracted with Messrs. Ball & Co., of this city, to supply them with pure water from a pond distant 3 3-4 miles from their village. The contract embraces 8 or 9 miles of pipe of the diameter of 9, 6, 4 and 2 inches, which, including hydrants, gates, stops, &c., amounts to some twenty-five thousand dollars. We are pleased to see this improvement being thus very extensively introduced in various sections of the country, as we know from personal experience that the Indestructible Pipe is a most invaluable invention, and as put down by the proprietors themselves, well calculated to resist the efforts of time almost beyond calculation, while the water is as pure as though passing through a marble conduit. These pipes are far superior in regard to the purity of the water, their durability and economy, to those in general use. Our "Down East" friends will have without doubt their work well and promptly done, and like many others, will only wonder that they had not attempted it before.—*Farmer and Mechanic.*

Ladies' Department.

THE UGLY BEAUTY; OR A FAIR MIND MAKES A FAIR FACE.

"I wish," said little Mary, "I was as handsome as my cousin Frances. Every one praises her beauty, and too often have I heard it contrasted with my plain and almost ugly features." The fact was that Mary was very ill-tempered, and it gave to her face an ugly scowl, which prejudiced every one against her. "I wish," said she, "I could be beautiful; I would willingly become a slave to purchase a fair face."

At this moment a strange being touched her on the shoulder, and said, "If you will do what I bid you, for one year, I will engage to make you as beautiful as you can wish." "I will submit to anything," said Mary. "I only insist upon your being amiable to all," said the stranger; "you must give up your own wishes to oblige others, and do all in your power to make them happy. If you fail in one instance, I shall not return."

Mary promised; but she would rather have promised to do any hard labor, than to love her companions, and to give up her own wishes to please others. She longed, however, to be beautiful, and she determined on making an effort to become so. At first, the effort was painful and difficult, but it was not impossible, and she succeeded.

In less than a month, she was surprised to find every one treating her kindly, and saying how much better she looked than she used to. She herself thought that her face had grown more pleasant, but she concluded she must be deceived. She persevered, and the kindness with which she was received by all made her so happy that she was not aware that the end of her year of trial was at hand.

As she was sitting at her window one evening, she overheard the mother of Frances saying to a friend: "How happy my sister must be in possessing such a daughter as Mary! I wish my Frances was half as lovely." Mary could not believe her own ears, and yet she felt that her aunt's approbation was sincere.

At this moment, the mysterious stranger touched her shoulder as before, and told her, she had come to fulfil her promise. "Shall I make you as beautiful as your cousin Frances?" said the stranger. "I am contented," said Mary, "with my face. I have learned that it is the mind and disposition, beaming through the features themselves, which constitute beauty."

TREATMENT OF SCARLET FEVER.

The following communication comes from a gentleman in whose judgment we have entire confidence:—

Cleanse the stomach by a mild emetic, such as warm water or ipecac, (but not emetic tartar—it is too prostrating for this disease.)

When the fever rises, wash the patient all over in warm water, rendered a little slippery between the thumb and finger, by white ley or saleratus. As frequent washings will be required,—that is, as

often as the fever rises,—a soft towel should be used, and very gently, so as not to make the skin sore. On this account, when the skin is thoroughly cleansed, less ley should be used; and if the patient become sore, a little rich milk in the water may be substituted. The feet should also be bathed in warm weak ley.

Such washings operate like a charm; and have never failed, under my observations, to put out the fever as water puts out fire—for a time; but frequent repetitions will be necessary. A girl in my family was washed ten times in one day; and a neighbor who was very weak before he came under my care, was washed twenty times in one night.—The effect of these applications is most salutary and soothing. I have seen a child of five years old, who was taken from her bed crying and moaning, become playful as soon as she was washed.—Another child, on whom the fever had risen high in the night,—was cooled off by the same process in a few minutes.

Warm water is more soothing and agreeable than *cold* water—which (latter) ought not to be applied in this disease, on account of its inducing re-action.

If the throat is much swelled, surround it with a cloth containing hops sprinkled with hot vinegar, and extending upwards above the nose, so that the patient may breathe the fumes. Volatile liniment,—made by turning *aqua ammonia* into sweet oil in a phial and shaking it well,—may also be applied round the throat, to irritatate the skin as a rubefacient.

The *strength* of the patient should be most carefully preserved, hence neither *bleeding* nor *strong cathartics* are admissable. Some, indeed, live through such improper treatment, because scarlet fever is one of the most variable diseases in regard to intensity: on some being very light and on others very severe. The more urgent the case, the greater is the danger from bleeding. *The patient has not one drop of blood to spare*—no more than he would have in typhus; and strong purgatives are scarcely less improper. Only the mildest cathartics, like tamarinds, should be employed; but as elder-flower tea is both sudorific and aperient, in most cases no better medicine need be sought.*

After the fever has ceased, children often become pale and bloated; and a near neighbor lost a fine boy under the care of a regular physician, when the disease seemed over and past. In all cases, however, that have come to my knowledge, a dose of calomel, when given, has roused them from that torpid state, and they have rapidly recovered.

Be very careful for many days after, not to take cold.—*Albany Cultivator.*

*Decoctions of slippery elm, catnep, or sage, may be used where elder-flowers are not to be had.

GIRLS.

Have you a father, have you a mother? Do you love them? Girls, do you know the value of your mother, if you have not lost her? Nobody loves you, nobody will love you as she does. Do not be ungrateful for that love; do not repay it with coldness, or a curse of coldness will rest upon you, which you can never shake off. Unloved and unloving you will live and die, if you do not love and honor your father and mother.

One thing, never call either "old man" or "old woman." It is quite a habit in this country for young people to name their parents thus. This is rude, impudent and undutiful. Any aged person is an old man or an old woman. There should be something sacred, something peculiar in the word that designates parents. The tone of voice in which they are addressed should be affectionate and respectful. A short surly answer from a child to a parent falls very harshly on the ear of any person who has any idea of filial duty. Be sure, girls, that you each win for yourselves the name of a dutiful daughter. It is so easy to win, that no one should be without it. It is much easier to be a good daughter than a good wife and mother. A child's duties are much more easily performed than a parent's; so that she who is a good daughter may fail to be a good wife or mother; but she who fails in this first, most simple relation, need never hope to fill another well. Be sure, then, that you are a good daughter. It is the best preparation for every other station, and will be its own reward. The secret you dare not tell her is a dangerous secret, and one that will be likely to bring you sorrow. The hours you spend with her will not bring you regret; and you should never feel disappointed or out of humor, for not being permitted to go to some place to which you wish to go. You should love her so well that it would not be felt a punishment to give up the gayest party to remain with her.

Nothing is more beautiful than to see a girl take off her things, and sit smilingly down with her mother, because she wished it. Go and kiss mother, as you used to do when a child, and never grow too large or wise to be a child at her side.

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